We claim:

1. A method of generically emulating devices in a device connectivity protocol, the method comprising:

processing a description of a device to be emulated in the device connectivity protocol, the description specifying a set of actions of the device;

in response to receiving an action request per the device connectivity protocol, validating whether the action request matches an action out of the set of actions specified in the description;

upon validating the action request to match the action, performing a default behavior consistent with the description.

2. The method of claim 1 wherein performing the default behavior comprises producing a response message containing a default value consistent with a data type specified for a return parameter of the action in the description.

3. The method of claim 1 wherein performing the default behavior for an action having a set of input and output parameters corresponding to state variables of the device comprises:

setting the corresponding state variables of the device to values of the respective input parameters contained in the action request;

producing a response with output parameters set to values of the corresponding state variables of the device; and

producing an eventing message if the action modified any of the evented variables.

4. The method of claim 1 further comprising:

providing hooks to interface user-provided action behavior implementations, if any, for the set of actions;

upon validating the action request to match the action, first checking whether there is a user-provided action behavior implementation for the action; and

performing the default behavior consistent with the description if there is no user-provided action behavior implementation, and otherwise performing the user-provided action behavior implementation for the action.

5. The method of claim 1 wherein the hooks interface user-provided action behavior implementations of some number fewer than all of the set of actions.

6. The method of claim 1 further comprising:

applying a defect behavior to messages produced to emulate the device in the device connectivity protocol;

7. The method of claim 6 wherein the defect behavior is applied to packets of a particular type.

8. The method of claim 6 wherein applying the defect behavior comprises invoking a user-provided implementation of the defect behavior.

9. The method of claim 1 further comprising randomly applying a defect behavior out of a set of defect behaviors to messages produced to emulate the device in the device connectivity protocol.

10. A method of emulating devices in a device connectivity protocol, the method comprising:

reading a defect configuration representing in a tagged text format at least one defect behavior to be applied to a type of packet transmitted from an emulated device per the device connectivity protocol;

upon producing a packet of a type for which a defect behavior is represented in the defect configuration, applying the defect behavior to the packet; and

transmitting the packet as modified by applying the defect behavior.

11. The method of claim 10 wherein applying the defect behavior comprises invoking a user-provided implementation of the defect behavior.

12. The method of claim 11 further comprising randomly applying a defect behavior out of a set of defect behaviors to messages produced to emulate the device in the device connectivity protocol.

13. Computer-readable media having stored thereon a software framework of a generic device emulator for execution on a computer to provide emulation of an operation of a device within a device connectivity architecture consistent with a textual description of the device, wherein the description of the device specifies data formats of requests and responses for a set of actions that the device is capable of, the generic device emulator comprising:

program code for receiving action requests directed to the device within the device connectivity architecture;

program code for validating whether an action request matches that of an action specified in the description; and

program code for performing a default behavior producing a response for the action consistent with the data format specified in the description.

14. The computer-readable media of claim 13 comprising:

program code for providing hooks to interface user-provided action behavior implementations of any number of the set of actions; and

program code for checking upon validating that an action request matches that of the action specified in the description whether a user-provided action behavior implementation is presently hooked for the action; and

program code operating in a case that a user-provided action behavior implementation is presently hooked for the action to invoke the user-provided action behavior implementation in place of the default behavior.

15. The computer-readable media of claim 13 wherein performing the default behavior comprises producing a response message containing a default value consistent with the data format of the response specified for the action in the description.

16. The computer-readable media of claim 13 wherein the program code for performing the default behavior for the action in which the data format of the request and response has a set of input and output parameters corresponding to state variables of the device comprises:

program code for setting the corresponding state variables of the device to values of the respective input parameters contained in the action request; and

program code for producing the response with output parameters set to values of the corresponding state variables of the device.

17. The computer-readable media of claim 13 further comprising:

program code for reading a defect configuration representing in a tagged text format at least one defect behavior to be applied to a type of packet transmitted from the emulation of the device within the device connectivity architecture;

program code for applying the defect behavior to a packet upon producing the packet of a type for which a defect behavior is represented in the defect configuration,; and

program code for transmitting the packet as modified by applying the defect behavior.